METHOD, SYSTEM, AND PROGRAM FOR GENERATING PARITY DATA

ABSTRACT

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2   Provided are a method, system, and program for generating parity data when updating old
3   data stored in an array of storage devices in a data organization type which utilizes parity data. In
4   one embodiment, a logic engine has plural registers or store queues in which new data obtained in
5   a read operation is stored. A logic function such as an Exclusive-OR function is performed on the
6   new data in each of the plural registers using old data obtained in another read operation. A logic
7   function such as an Exclusive-OR function is performed on the intermediate data in one of the
8   plural registers using old parity data of a first type obtained in another read operation, to generate
9   new parity data of the first type. A logic function such as an Exclusive-OR function is performed
10 on the intermediate data in another of the plural registers using old parity data of a second type
11 obtained in another read operation, to generate new parity data of the second type.